

## **REMARKS**

### **Status of Claims**

Claims 1, 8, 11, 17-18, 22-24, 26-27, 30, 33, 45, 53, 75-76, 81-82, 84 and 86 were amended. Claims 1-90 remain pending. It is noted that claims 89 and 90 were added via an amendment having a mailing date of May 8, 2006 however these claims were not examined in the Office Action.

Claims 37-74 were indicated to have allowable subject matter. Claims 76-79 and 84-88 were indicated to have allowable subject matter if rewritten in independent form. It is noted that claims 18-19 are listed on the Office Action summary as being rejected however no specific rejection is mentioned in the detailed action.

Objected to claims 76-79 and 84-88 have been rewritten into independent form. Claims 18-19 and 26 which were not rejected over prior art have also been rewritten into independent form.

### **35 USC §112 Rejection**

Claims 8, 17, 45 and 53 were rejected under 35 USC §112 as being indefinite with regard to the use of the word aperture with regard to its use in reference to mirrors. Attached is a copy of the definition of the word "aperture" from the Merriam-Webster On-Line dictionary. It is noted from that definition that aperture does have meaning with regards to objective lens and mirrors. To render moot the Examiner's rejection however, the term aperture has been removed.

Claims 23-24 and 26-32 have been rejected under 35 USC §112 as being indefinite with regard to the first, unknown and/or calibration samples in association with the reference or sample paths. Claims 23, 24, 26, 27, and 30 have been amended to address the rejection.

### 35 USC §102 Rejection – Kotidis

Claims 1-13, 17 and 20 are rejected over Kotidis. This includes independent claims 1 and 11 are rejected.

Kotidis discloses an interferometer which detects the combined signal from the reference and sample beams during operation. As such, Kotidis does not include a mechanism to collect data from the reference channel light path that may be utilized to account for system or environmental changes in the reflectance data. The system of Kotidis is, by definition, always measuring the interference of both signals including the reference and sample beams. Although two shutters are integrated into the Kotidis system, they are not incorporated in a manner that enables one to independently collect data from the reference arm. Though Kotidis uses the term “reference beam” (for example Col. 5 line 65), such term is used in the context of an interferometer which uses a reference beam and sample beam to make a combined signal that is detected. Kotidis does not teach or suggest referencing to account for system and environmental changes. It is noted that claim 1 includes:

wherein the reference channel light path is configured to collect data that may be utilized to account for system and environmental changes to adjust reflectance data obtained through the use of the reflectometer

and claim 11 includes:

means for referencing the reflectometer to enable an adjustment of reflectance data obtained from the sample to account for reflectometer ~~or~~ and environmental changes between a reflectometer calibration time and the time the sample reflectance data is obtained.

As such, it is respectfully asserted that independent claims 1 and 11 are patentably distinct from Kotidis.

### 35 USC §102 Rejection – Nawracala

Claims 11, 14, 21-25, 27-36, 75, 80-83 are rejected over Nawracala. This includes independent claims 11, 22, 33, 75, and 81.

Nawracala provides a system that includes a “sample measuring setup 22” and “referencing measuring system 21”. [Paragraphs 37-39 and Figure 2] These elements are coupled to a light source 23 through glass fibre cables 26 and 28 and cable 26 and 31 respectively. In the referencing measuring system 21 the light is provided to a “substrate 43 that has no layer so as to create “a reference spectrum or master standard” used for calibration. Nawracala provides no teaching or suggestion as to referencing to account for environmental changes. For example, Nawracala makes no suggestion as to accounting for environmental changes in the light path. The fact that Nawracal utilizes sample and calibration paths that are not balanced further indicates that Nawracal does not suggest accounting for environmental changes. Rather, Nawracala merely teaches a calibration scheme with a light source, glass fibres, and a substrate that has no layer.

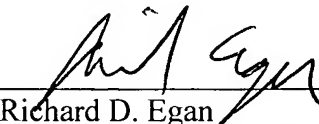
As amended, the previously rejected independent claims (1, 11, 22, 33, 75, and 81) have been amended so that the referencing relates to both system and environmental changes. As noted above Nawracala does not provide or suggest referencing of environmental parameters. As such is it respectfully asserted that the rejected independent claims are patentable over Nawracala.

### 35 USC §103 Rejection – Nawracala in view of Kotidis

Claims 15-16 were rejected over a combination of Nawracala in view of Kotidis. For the same reasons described above with reference to independent claim 11, the combination of Nawracala in view of Kotidis does not teach the claim elements of dependent claims 15-16 and it is respectfully asserted that these claims are allowable.

The examiner is invited to contact the undersigned at the phone number indicated below with any questions or comments, or to otherwise facilitate expeditious and compact prosecution of the application.

Respectfully submitted,

  
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